

**Top Negative Trends Discovered during FY-15 Maintenance
Safety Assessments**

(Ascending order by Risk Assessment Code/Severity-Probability)

Main areas of concern are:

1. Basic Maintenance Evolutions: RAC 1 (1/B)
2. Improper Tool Control: RAC 2 (2/B)
3. Improper SE Pre-Operational Inspections: RAC 2 (2/B)
4. FOD Walkdown processes: RAC 3 (3/B)
5. Central Technical Publications Library: RAC 4 (3/C)
6. HAZMAT procedures: RAC 4 (4/B)
7. ALSS Documentation: RAC 4 (3/C)
8. Logs and Records: RAC 4 (3/C)
9. Technical Directives: RAC 4 (3/C)
10. Maintenance Meeting: RAC 5 (4/D)

Additional areas of concern in FY-15:

15 Class C/1 Class B mishaps reported for panels/structural damage during routine maintenance evolutions.

10 Class C/1 Class B mishaps reported for ground aircraft movement related incidents.

3 Class C mishaps reported for panels being lost overboard/mishandled.

All the above can be attributed to lack of supervision/not following publications

FY15 Maintenance Related Mishap Common Factors

1. Insufficient supervision by Work Center Supervisors, Quality Assurance(QA) personnel, Collateral Duty Inspectors, and Division Leadership
2. Failure to follow publications
3. Failure to perform Proper Risk Assessment
4. Lack of knowledge, inexperience
5. Complacency

Leading to:

Top Ten Trends from Maintenance Safety Assessments FY-15: Cause and effect.

Basic Maintenance Evolutions:

Common Discrepancies: Multiple instances of maintenance being performed without Pubs/PEMAs; No supervisory or QA presence at the work sites; Pubs/PEMAs on hand however not being utilized.

Cause: Lack of supervision, over-confidence, or pressure (perceived or real) to get the job done.

Effect: Not following the publications will lead to missed steps/requirements when performing maintenance, ultimately leading to mishaps, personal injuries and damage to aircraft/equipment.

Tool Control:

Common Discrepancies: Beginning of Shift (BOS)/End of Shift (EOS) ATAFs not being conducted by the work center supervisor. Supervisors signing ATAF without conducting the tool inventory; non-CDI/non-supervisory personnel signing for ATAFs in shop logbooks.

Cause: Lack of attention to detail, lack of supervision, and/or failure to follow established procedures.

Effect: Not having an accurate accountability of tools at the BOS/EOS contributes to tools being left inside aircraft or on equipment during operational checks and/or flights posing extreme potential for mishaps, personal injury and damage to aircraft/equipment.

SE Pre-Operational Inspections:

Common Discrepancies: Identified multiple occasions of gun-decking pre-op inspections; performing pre-op inspections without using pre-op cards/MIMs; missed steps while performing the pre-op inspection.

Cause: Lack of attention to detail, lack of supervision, and/or failure to follow publication

Effect: Using support equipment that has not been properly pre-op'd increases the risk of mishaps, personal injury and aircraft/equipment damage.

FOD Walkdown:

Common Discrepancies: Limited senior leadership involvement in daily FOD walk downs. Overall low attendance and lack of focus during FOD walk down.

Cause: Lack of attention to detail, lack of supervision, and/or failure to follow established procedures.

Effect: Poorly executed FOD walk downs increases FOD in the hangar bay and on flight lines leading to missile hazards and FOD ingestion into equipment and aircraft. The lack of senior leadership involvement sends the message that FOD prevention is not important and elevates the risks of aircraft mishaps and personal injury.

Central Technical Publications Library:

Common Discrepancies: Multiple publications/PEMAs outdated, IRACs/Changes not incorporated or incorporated incorrectly, not tracked in ELMS database.

Cause: Lack of knowledge/inexperience, lack of engaged leadership/supervision.

Effect: Publications are in a constant state of change. Outdated publications will cause the performance of improper maintenance leading to mishaps, personal injury and damage to aircraft/equipment.

HAZMAT:

Common Discrepancies: PPE not being utilized; HAZMAT/MSDS is not marked with unique identifier codes; personnel are not reviewing the MSDSs.

Cause: Lack of attention to detail, training, and oversight. There is a lack of follow-on training or concern for personnel to review updated MSDSs.

Effect: Lack of required documentation and knowledge of MSDS could inhibit proper first aid or proper response to HAZMAT incidents.

ALSS Documentation:

Common Discrepancies: Numerous accounts of ALSS components being moved from one aircrew to another without any MAF/Work Order documentation.

Cause: Complacency, lack of knowledge/experience, lack of attention to detail and supervision failure to follow established procedures. Pressure: perceived or real, to get the aircrew into the aircraft in minimal timeframe.

Effect: Increased potential for lost tools/FOD or un-CDI'd gear prior to flight. Loss of integrity of the inspection cycles if limited life components are not tracked when switched from one aircrew to the other leading to gear flown in a down status.

Logs and Records:

Common Discrepancies: Aircraft logbooks, SEPMS records, ALSS Records, and NALCOMIS (OOMA) are not being maintained in an up-to-date status.

Cause: Complacency, lack of knowledge/experience, lack of attention to detail and supervision, failure to follow established procedures.

Effect: Having ambiguity with NALCOMIS (OOMA) and the associated records promotes the risk of flying a component past its required inspection and life limitation. In doing so, this could result in the loss of life, aircraft or equipment.

Technical Directives:

Common Discrepancies: Technical Directives are not being screened and complied with in the required timeframes on components being removed and replaced.

Cause: Complacency, lack of knowledge/experience, lack of attention to detail and supervision, failure to follow established procedures.

Effect: Not ensuring components are within Technical Directive compliance promotes the risk of flying an unsafe aircraft or component. In doing so, this could result in the loss of life, aircraft or equipment.

Maintenance Meeting:

Common Discrepancies: Non-aeronautical workload report not discussed, clear priorities not laid out for each work center, risk management not discussed.

Cause: Complacency, lack of knowledge/experience, lack of attention to detail and supervision, failure to follow established procedures.

Effect: Conflicting maintenance priorities induce confusion between work centers and maintenance control, creating reactionary cultures and lack of unified direction. Potential for using NRFI equipment to perform maintenance and flying aircraft in a down status increases. Maintenance lacks control of ALSS and ensuring that gear is RFI for aircrew.